

Highlights of GAO-14-807, a report to the Ranking Member, Committee on Energy and Natural Resources, U. S. Senate

## Why GAO Did This Study

Almost 4 decades ago, in response to the Arab oil embargo and recession it triggered, Congress passed legislation restricting crude oil exports and establishing the SPR to release oil to the market during supply disruptions and protect the U.S. economy from damage. After decades of generally falling U.S. crude oil production, technological advances have contributed to increasing U.S. production. Meanwhile, net crude oil imports—imports minus exports—have declined from a peak of about 60 percent of consumption in 2005 to 30 percent in the first 5 months of 2014. According to Energy Information Administration forecasts, net imports are expected to remain well below 2005 levels into the future.

GAO was asked to provide information on the implications of removing crude oil export restrictions. This report examines what is known about (1) price implications of removing crude oil export restrictions; (2) other key potential implications; and (3) implications of recent changes in market conditions on the SPR. GAO reviewed four studies on crude oil exports, including two sponsored by industry, and summarized the literature and views of a nonprobability sample of stakeholders including academic, industry, and other experts.

## What GAO Recommends

In view of changing market conditions and in tandem with activities to assess other aspects of the SPR, GAO recommends that the Secretary of Energy reexamine the size of the SPR. In commenting on a draft of this report, DOE concurred with GAO's recommendation.

View GAO-14-807. For more information, contact Frank Rusco at (202) 512-3841 or [ruscof@gao.gov](mailto:ruscof@gao.gov).

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# CHANGING CRUDE OIL MARKETS

## Allowing Exports Could Reduce Consumer Fuel Prices, and the Size of the Strategic Reserves Should Be Reexamined

### What GAO Found

The studies GAO reviewed and stakeholders interviewed suggest that removing crude oil export restrictions is likely to increase domestic crude oil prices but decrease consumer fuel prices. Prices for some U.S. crude oils are lower than international prices—for example, one benchmark U.S. crude oil averaged \$101 per barrel in 2014, while a comparable international crude oil averaged \$109. Studies estimate that U.S. crude oil prices would increase by about \$2 to \$8 per barrel—bringing them closer to international prices. At the same time, studies and some stakeholders suggest that U.S. prices for gasoline, diesel, and other consumer fuels follow international prices, so allowing crude oil exports would increase world supplies of crude oil, which is expected to reduce international prices and, subsequently, lower consumer fuel prices. Some stakeholders told GAO that there could be important regional differences in the price implications of removing crude oil export restrictions. Some stakeholders cautioned that estimates of the implications of removing export restrictions are uncertain due to several factors such as the extent of U.S. crude oil production increases, how readily U.S. refiners are able to absorb such increases, and how the global crude oil market responds to increasing U.S. production.

The studies GAO reviewed and stakeholders interviewed generally suggest that removing crude oil export restrictions may also have the following implications:

- **Crude oil production.** Removing export restrictions would increase domestic production—8 million barrels per day in April 2014—because of increasing domestic crude oil prices. Estimates range from an additional 130,000 to 3.3 million barrels per day on average from 2015 through 2035.
- **Environment.** Additional crude oil production may pose risks to the quality and quantity of surface groundwater sources; increase greenhouse gas and other emissions; and increase the risk of spills from crude oil transportation.
- **The economy.** Removing export restrictions is expected to increase the size of the economy, with implications for employment, investment, public revenue, and trade. For example, removing restrictions is expected to contribute to further declines in net crude oil imports, reducing the U.S. trade deficit.

Changing market conditions have implications for the size, location, and composition of Department of Energy's (DOE) Strategic Petroleum Reserve (SPR). In particular, increased domestic crude oil production and falling net imports may affect the ideal size of the SPR. Removing export restrictions is expected to contribute to additional decreases in net imports in the future. As a member of the International Energy Agency, the United States is required to maintain public and private reserves of at least 90 days of net imports but, as of May 2014, the SPR held reserves of 106 days—worth about \$73 billion—and private industry held reserves of 141 days. DOE has taken some steps to assess the implications of changing market conditions on the location and composition of the SPR but has not recently reexamined its size. GAO has found that agencies should reexamine their programs if conditions change. Without such a reexamination, DOE cannot be assured that the SPR is sized appropriately and risks holding excess crude oil that could be sold to fund other national priorities.